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| 08/841,397 | 04/30/1997 | SHINYA MATSUOKA | 063170.6251 | 3144 |
| 5073 7590 05/08/2007 BAKER BOTTS L.L.P. 2001 ROSS AVENUE SUITE 600 DALLAS, TX 75201-2980 | | | EXAMINER DINH, KHANH Q | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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|------------------------------|-------------------------------|----------------------------------|--|
| Office Action Summary | Application No. 08/841,397 | Applicant(s) MATSUOKA, SHINYA | |
| | Examiner Khanh Dinh | Art Unit 2151 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-9, 11-18, 20-25 and 45-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 8 and 25 is/are allowed.
- 6) ☒ Claim(s) 1,3-7,9,11-18,20-24 and 45-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This is in response to the Amendment and Remarks filed on 2/19/2007.

Claims 1, 3- 9, 11-18, 20-25 and 45-48 and new claim 49 are presented for examination.

Claim Rejections - 35 USC ' 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-5, 7, 9, 11, 12, 13, 17, 18, 20-22, 24, 45-49 are rejected under 35 U. S. C. 103(a) as being unpatentable over Bruno et al U.S. pat. No. 5,710,591 in view of Cohen et al, IEEE 1993, "Virtual gain for audio windows."

As to claim 1, Bruno discloses an audio conference sever (ACS) for enabling an application program to provide multi-point (22a, 22b, 22c fig. I) comprising:

- means for managing at least one audio conference, said at least one audio conference comprising a plurality of audio clients (12a, 12b, 12c fig. I).
- means for receiving (MCU 26 fig. I) real time audio data from said plurality of audio clients (see abstract, fig. I and col.I lines 29-51 and col.8 line 27 to col.9 line 38).

Bruno does not specifically disclose mixing means for mixing means for mixing said real time audio data and store audio data associated with at least one point audio source into spatialized audio data and the mixing means including attenuation operable to provide distance-based attenuation according to a plurality of functions, each sound decay function being associated with a respective one of the plurality of audio clients or the at least one point source and a different volume/distance relationship. However, Cohen discloses mixing means for mixing said real time audio data and store audio data associated with at least one point audio source into spatialized audio data (using Cohen's audio mixers, for transferring data to multiple audio resources, see page 85, section 0.1) and the mixing means including attenuation operable to provide distance-based attenuation according to a plurality of functions (virtual gain is calculated by the effects of the distance between source and sink. In this case, Cohen discloses using sound sources as points reflect changes to the Virtual gains, see pages 87-88), each sound decay function being associated with one of the plurality of audio clients or the at least one point source and a different volume/distance relationship [i.e., the distance -dependent gain parameter used in MAW (moving source/moving sink) and listeners can alter these different parameters among the teleconferees, see Cohen's section 1.2, distance dependent-gain and fig.3, pages 85-88]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Cohen's audio data mixer in Bruno's audio conference server to control the volume of a

sound source and a listener because it would have allowed multiple simultaneous audio sources to coexist in a modifiable display without user stress (see Cohen's section 0.1).

As to claim 3, Bruno teaches checking the status of a registered owner of said at least one audio conference to determine whether said at least one audio conference still exists (detecting the location of a signal to identify at least one terminal device, see abstract and col.12 lines 20-52).

As to claim 4, Bruno further discloses checking means including a resource audit service (multiple control unit MCU 26 of fig. I), said resource audit service operable when said at least one audio conference is generated by a first application and is being used by a second application (a presentation mode can be seen by other conferees, see abstract and col. 4 line 54- col.5 line 40).

As to claim 5, Bruno further discloses a plurality of audio clients includes set top box (STB) audio clients and point source audio (PSA) audio clients (audio sources and the participants of the teleconference, see col.7 lines 27-64).

As to claims 7 and 17, Bruno discloses an audio conference sever (ACS) comprising:
managing means for determining distance between a target audio client and a plurality of source audio clients (12a, 12b, 12c fig. I). Bruno does not specifically

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disclose receiving means operable to receive real time audio data and stored audio data associated with at least one point source into spatialized data and means for determining a weight value for each of plurality of audio clients and the at least one point source based on an identified decay function and a respective distances between each of the plurality of audio clients and from each of the plurality of audio clients to the at least one point source, means including generating a mix table including each of the plurality of audio clients and the at least one audio source, calculating an actual mix and refining the actual mix for the plurality of audio clients, and an audio big decay function, an audio small decay function, an audio medium decay function and a constant decay function, means for determining respective distances between each of the plurality of audio clients and from each of the plurality of audio clients to the at least one point source. However, Cohen discloses:

receiving means operable to receive real time audio data and stored audio data associated with at least one point source into spatialized data and means for determining a weight value for each of plurality of audio clients and the at least one point source based on an identified decay function and a respective distances between each of the plurality of audio clients and from each of the plurality of audio clients to the at least one point source and means for determining a plurality of weight values for each of said source audio clients based on an identified decay function (distance-dependent gain parameter used in MAW, see Cohen's section 1.2) and a distance between each of said source audio client and a target audio client, wherein each of said weight values corresponds to a source/client pair (see Cohen's section 1.2, fig.3),

means for generating a mix table (mixing board, see Cohen's section 0.1) including each of the plurality of audio clients and the at least one audio source, calculating an actual mix and refining the actual mix for the plurality of audio clients (calculating clients' parameters, see Cohen's section 0.1).

Cohen further discloses a continued gradual decay characteristics (see Cohen's fig.3). Therefore, Cohen inherently discloses an audio big decay function, an audio small decay function, an audio medium decay function and a constant decay function. Cohen further discloses said sound decay characteristic may take into account decay characteristics according to a sound's behavior (Virtual gain is calculated by the effects of the distance between source and sink. In this case, Cohen discloses using sound sources as points reflect changes to the Virtual gains, see pages 87-88). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Cohen's audio data mixer in Bruno's audio conference server to control the volume of a sound source and a listener because it would have allowed multiple simultaneous audio sources to coexist in a modifiable display without user stress (see Cohen's section 0.1).

Claims 9 and 18 are rejected for the same reasons set forth above for claim 1.

Claim 11 is rejected for the same reasons set forth above for claim 3.

Claim 13 is rejected for the same reasons set forth above for claim 5.

Claim 12 is rejected for the same reasons set forth above for claim 4.

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As to claim 20, Bruno further discloses the computer program product of claim 18, further comprising checking means operable to enable the computer to check a status of a registered owner of the at least one audio conference to determine whether the at least one audio conference still exists (using authentication process to authenticate clients, see col.8 lines 5-57 and col.10 lines 20-67).

As to claim 21, Bruno further discloses the computer program product of claim 20, wherein the checking means includes a resource audit service, the resource audit service operable when the at least one audio conference is generated by a first application and is being used by a second application (see col.11 lines 25-60 and col.13 lines 8-67).

As to claim 22, Bruno further discloses the computer program product of claim 18, wherein the plurality of audio clients includes set-top box audio clients and point source audio clients (see col.11 lines 25-60 and col.13 line 8 to col.14 line 41).

Claim 24 is rejected for the same reasons set forth above for claim 7.

Claims 45 and 46 are rejected for the same reasons set forth above for claims 1 and 7.

Claim 47 is rejected for the same reasons set forth above for claim 1.

Claim 48 is rejected for the same reasons set forth above for claim 24.

As to claim 49, Bruno further discloses the audio conference server of Claim 1, wherein at least a portion of the stored audio data is associated with one or more of the plurality

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of audio clients (see col.10 lines 20-67 and col.11 line 25 to col.12 line 39).

4. Claims 6, 14-16 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Braun and Cohen as applied to claim 1 above, and further in view of Chau et al U. S. Pat. No.5,764,750.

As to claims 6 and 23, Braun and Cohen's teachings still applied as in claim 1 above, but neither Braun nor Cohen discloses managing means comprises means for enabling the computer to provide an audio conference server shell to allow a user to interactively interface with the audio conference server, the audio conference server shell including: means for enabling the computer to provide program access to high level methods for creating and managing a proxy audio conference; means for enabling the computer to provide program access to methods for creating and managing a plurality of point source audio clients; and means for enabling the computer to provide program access to low level methods for creating and managing the at least one audio conference.

However, Chan et al disclose managing means comprises means for enabling the computer to provide an audio conference server shell to allow a user to interactively interface with the audio conference server, the audio conference server shell including: means for enabling the computer to provide program access to high level methods for creating and managing a proxy audio conference; means for enabling the computer to provide program access to methods for creating and managing a plurality of point source audio clients; and means for enabling the computer to provide program access to low level methods for creating and managing the at least one audio conference (see

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abstract, fig.2 and co1.5 lines 1-col.6 lines 35). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Chau et al's proxy server in Braun's audio conference server because it would have provided the capabilities required of endpoints by the local system and its protocol in order to allow the local and the, remote endpoints to communicate with each other see Chau's summary).

As to claims 14-16, it is similar in scope as that of claim 6, and therefore is rejected for the same reasons set forth above for claim 6.

Allowable Subject Matter

5. Claims 8 and 25 are allowed.

Response to Arguments

6. Applicant's arguments filed on 2/19/2007 have been fully considered but they are not persuasive.

- Applicant asserts that the cited reference does not disclose means for receiving real time audio data from said plurality of audio clients and mixing means operable to mix...into spatialized data".

Examiner respectfully disagrees. Examiner still respectfully point out that the combination of Bruno and Cohen discloses the Applicant's claimed invention.

For example, Bruno discloses an audio conference sever (ACS) for enabling an

application program to provide multi-point (22a, 22b, 22c fig. 1) comprising: means for managing at least one audio conference, said at least one audio conference comprising a plurality of audio clients (12a, 12b, 12c fig. 1), means for receiving (MCU 26 fig. 1) real time audio data (indexing audio/video information exchanged between clients during an audio/video conference) from said plurality of audio clients (see fig. 1 and col.1 lines 29-51). However, Cohen discloses mixing means for mixing said real time audio data and store audio data associated with at least one point audio source into spatialized audio data (using Cohen's audio mixers, for transferring data to multiple audio resources, see page 85, section 0.1) and the mixing means including attenuation operable to provide distance-based attenuation according to a plurality of functions (virtual gain is calculated by the effects of the distance between source and sink. In this case, Cohen discloses using sound sources as points reflect changes to the Virtual gains, see pages 87-88), each sound decay function being associated with one of the plurality of audio clients or the at least one point source and a different volume/distance relationship [i.e., the distance -dependent gain parameter used in MAW (moving source/moving sink) and listeners can alter these different parameters among the teleconferees, see Cohen's section 1.2, distance dependent-gain and fig.3, pages 85-88]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize Cohen's audio data mixer in Bruno's audio conference server to control the volume of a sound source and a listener because it would have allowed multiple

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simultaneous audio sources to coexist in a modifiable display without user stress (see Cohen's section 0.1) as rejected above.

- Applicant asserts that the Chau reference does not disclose an audio conference server shell including means for creating and managing a plurality of point source audio clients.

Examiner respectfully point out that that the Chau reference disclose an audio conference server shell including means for creating and managing a plurality of point source audio clients [using a Multi Media Server (MMS) to provide and manage various type of data or media connections between workstations (clients) and other endpoints, see abstract, fig.2 and col.5 line 1 to col.6 lines 35).

As a result, cited prior art does disclose an audio conference sever (ACS), as broadly claimed by the Applicants. Applicants clearly have still failed to identify specific claim limitations that would define a clearly patentable distinction over prior art.

Conclusion

7. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

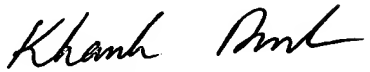
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (571) 272-3936. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Zarni Maung, can be reached on (571) 272-3939. The fax phone number for this group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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